

## REMARKS

1. In response to the Office Action mailed July 25, 2006, Applicants respectfully request reconsideration. Claims 1-47 were last presented for examination in this application. All claims were rejected in the outstanding office action. By the foregoing Amendments, claim 1 has been amended. No claims have been canceled or added. Thus, upon entry of this paper, claims 1-47 will remain pending in this application. Of these forty-seven (47) claims, seven (7) claims (claims 1, 20, 29, 39, 44, 45 and 46) are independent. Based on the above Amendments and following Remarks, Applicants respectfully request that all outstanding objections and rejections be reconsidered, and that they be withdrawn.

### *Claim Amendments*

2. Support for the amendments to claim 1 is found in the specification on page 14, paragraph 35, and originally filed claims 10, 13 and 14, as well as elsewhere throughout the originally filed specification, drawings and claims.

### *Objections*

3. Claims 39 and 44 are objected to because of the following informalities: "claim 39 and 44 recites 'a computer implemented system for managing information of probe array experiments'; however, the claimed limitations only direct to generating a template and defining the attributes of the selected experiment identifier. Assuming the applicant claimed the generating data template for probe array experiment. The rejection is included probe array experiments." (*See*, Office Action, page 5). Applicants respectively disagree.

4. Claims 39 and 44 are independent claims and the language of those claims which is objected to is located in the preamble of the claims. The limitations of claims 39 and 44 are not "only directed to generating a template and defining the attributes of the selected experiment identifier" as alleged by the Examiner. In addition, this objection is based on the Examiner "assuming the applicant claimed the generating data template for probe array experiment" instead of the actual limitations of claims 39 and 44. The limitations set forth in claims 39 and 44 are clearly defined. In addition to this objection being totally unnecessary and without merit, this objection is presented for the first time after six

previous actions by the Examiner in which the preamble of claims 39 and 44 was not amended or objected to. Applicants do not see any reason why such objection could not have been more clearly stated in any previous action by the Examiner. Therefore, Applicants request that this objection be withdrawn.

***Rejections Under 35 U.S.C. § 103(a)***

5. Claims 1-38 and 45-47 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over “Assay Explorer: Bringing Screening Software Up to Speed,” Jonathan Wingfield (Molecular Connection, Winter 2000) (hereinafter “Wingfield”) in view of U.S. Patent No. 6,408,308 to Maslyn et al. (hereinafter “Maslyn”). Based on the above Amendments and the following remarks, Applicants request that this rejection be withdrawn.

6. With respect to independent claim 1, the rejection is obviated due to the amendments to the claim and since the Office Action failed to establish a *prima facie* case of obviousness. The Office Action failed to show that the cited prior art references teach or suggest, either alone or in combination, all the elements of the claims and the Office Action failed to provide a motivation to combine the references.

7. Claim 1 as currently amended claims: “A method for managing biological information related to a biological experiment comprising:... specifying in the data template one or more biological attributes for each of the one or more identifiers and ***one or more control type attributes having one or more predefined attribute values***; selecting a first identifier of the one or more identifiers ***from a drop-down list*** containing the one or more predefined attribute values... .” (See, Applicants’ claim 1, above; emphasis added).

8. To properly reject a claim under Section 103(a) a *prima facie* case of obviousness needs to establish that the references, either alone or in combination, teach every claim element. (See, MPEP §§ 706.02(j) & 2143.) First, the Examiner asserts that Wingfield teaches “specifying in the data template the one or more identifies related to the use of the probe array.” (See, Office Action, page 6.) However, claim 1 does not recite “specifying in the data template the one or more identifies related to the use of the probe array” as amended nor as previously presented, as alleged by the Examiner. Instead, claim 1 recites “specifying in the data template ***one or more biological attributes*** for each of the one or

more identifiers.” (See, Applicants’ claim 1, above; emphasis added). During the interview on May 4, 2006, this error in the rejection was brought to the Examiner’s attention. However, the Examiner continues to maintain the same rejection using the same erroneous language. Accordingly, Applicants respectfully assert that the Examiner has failed to show that Wingfield teaches every element of claim 1.

9. Applicants respectively disagree with the Examiner’s assertions that Wingfield teaches or suggests “specifying in the data template *one or more biological attributes* for each of the one or more identifiers” as claimed by claim 1. First, Figure 1 of Wingfield is a dialog box for used to initiate the data validation process of the system described in Wingfield. (See, Wingfield page 21). Contrary to the Examiner’s assertion, Figure 1 of Wingfield does not depict generating a data template; rather Figure 1 of Wingfield depicts the initiation to process data gathered in table 1 of Wingfield. Thus, the dialog box cannot generate a data template and thereby fails to teach specifying in the data template one or more biological attributes as claimed by claim 1. The “plate” and “plate id” are not biological attributes or characteristics of the biological values obtained by the probe array, but rather field types used during the validation process. Instead these field identifiers of Wingfield describe the location from which the data was obtained on a plate. The Office Action has not cited any other portion of Wingfield or Maslyn for teaching “specifying in the data template *one or more biological attributes* for each of the one or more identifiers” as claimed by claim 1.

10. In response, the Examiner states that since “the claim is broad and there are no definition to further explain these identifiers and biological attributes... [t]herefore, the examiner interprets the claim limitations according to the broadest interpretation.” (See, Office Action, page 2). While Applicants do not disagree that claims should be given their broadest reasonable interpretation during prosecution, this interpretation should not be contrary to the claim language or specification. In claim 1 clearly defines biological attributes and control type attributes. The attributes shown in Figure 1 of Wingfield include “plate, plate id...” and do not describe any characterization that could be reasonably classified as biological. Therefore, the Office Action has failed to establish a *prima facie* case of obviousness and the rejection of claim 1 should be withdrawn for being improper.

11. Second, claim 1 as amended includes features which are not present in Wingfield or Maslyn either alone or in combination. Specifically, these features are “specifying ... *one or more control type attributes having one or more predefined attribute values*; selecting a first identifier of the one or more identifiers *from a drop-down list* containing the one or more predefined attribute values... .” (See, Applicants’ claim 1, above; emphasis added). The Examiner indicated that in Figure 1 of Wingfield that a “drop down menu further defin[es] the attributes.” (See, Office Action, page 2). In addition, with respect to dependent claim 13, the Examiner states that “20 is the control attribute” in Figure 1 of Wingfield. (See, Office Action, page 8). It appears from Figure that the “20” to which the Examiner refers to is the typed number under the header “Validate if greater than n%.” (See, Wingfield, page 21). This is not a control type attribute that has one or more predefined values which can be chosen from a drop-down list when selecting a first identifier. Therefore, these teachings cited by the Examiner of Wingfield still fail to teach the claim feature of specifying one or more control type attributes having one or more predefined attribute values and selecting a first identifier of the one or more identifiers from a drop-down list containing the one or more predefined attribute values, as recited in claim 1. Therefore, for this additional reason, the Examiner has failed to establish a *prima facie* case of obviousness and the rejection of claim 1 should be withdrawn for being improper.

12. Furthermore with respect to claims 1, 20 and 29, the Examiner also failed to articulate a suggestion or motivation to combine the references and thus failed to establish a *prima facie* case of obviousness as required by law and under MPEP Sections 706.02(j) & 2143. (See, *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998) (“To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness.”)). Sufficient evidential support for the motivation to combine must be shown in the prior art suggesting a combination of references. (See, *In re Lee*, 277 F.3d 1338, 1343 (Fed. Cir. 2002); see also, *In re Kotzab*, 217 F.3d 1365, 1371 (Fed. Cir. 2000) (“[P]articular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.”)).

13. The Examiner asserts that Wingfield substantially teaches Applicants' invention as recited in independent claim 1. The Examiner admits on page 3, however, that Wingfield fails to teach "the acquired one or more biological value information using a probe array." To remedy the admitted deficiency in Wingfield, the Examiner turns to Maslyn for "disclos[ing] database tables for storing the acquired data from the microarray." (*See*, Office Action, page 7). The Examiner stated that the motivation to combine Wingfield and Maslyn to rejection claims 20 and 29 is the same as claim 1. (*See*, Office Action, page 4). Also, the Examiner stated that "claim 46 is rejected under the same reason as to claim 1." (*See*, Office Action, page 14).

14. The only statement regarding the motivation to combine Wingfield with Maslyn to reject claims 1, 20, 29 and 46 is "it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Wingfield's system to include the data table for storing the acquired data from the microarray as taught by Maslyn in order to provide storage for storing experimental data." (*See*, Office Action, page 7). Also, in response to Applicants' previous arguments, the Examiner states that there is motivation to combine because "***there is a need to modify*** Wingfield by incorporating database table as experimental template as disclosed by Maslyn to receive and store value during a biological experiment." (*See*, Office Action, page 3; emphasis added). The Examiner fails to cite any passage of Wingfield or on the other prior art of record that indicates that supports such as assertion. In fact, there is no teaching or suggestion in the art of record that would motivate one of ordinary skill in the art to combine the teachings of Wingfield with Maslyn to satisfy this need. Nor has the Examiner does identify any objective evidence to support the assertion regarding motivation combine. Without identifying objective evidence the Examiner is only stating that Wingfield and Maslyn allegedly teach all the elements of claims 1, 20, 29 and 46. A bald assertion of all elements are present in the cited references is not a substitute for the absence of objective reasons, sufficient evidence and reasoned findings. (*See*, MPEP 2143.01; "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination."). Thus, based on Federal Circuit precedent it can be reasonable assumed the Examiner selected the references with the assistance of hindsight. (*See, In re Rouffet*, 149 F.3d 1350, 1358 (Fed. Cir. 1998)). The Federal Circuit has repeated stated that the use of hindsight must be guarded against

by having the Examiner provide sufficient evidence to support the motivation. (*See, e.g., In re Rouffet*, 149 F.3d 1350 (Fed. Cir. 1998); *In re Dembiczak*, 175 F.3d 994 (Fed. Cir. 1999)). In this rejection, it is clear that hindsight is used since the Office Action provided no motivation to combine Wingfield with Maslyn, except for the fact that allegedly all elements of Applicants' claimed invention are found in both references. Therefore, without proper objective evidence the Office Action fails to establish a proper *prima facie* case of obviousness to combine Wingfield with Maslyn, and thus the rejection of claims 1, 20, 29 and 46 should be withdrawn.

15. Since there is no objective evidence to support the rejection of these claims, these claims have been rejected on the basis of facts within the personal knowledge of the Examiner, namely the support for the need to modify Wingfield in view of Maslyn. Accordingly, under 37 C.F.R. § 1.104(d)(2) the Applicants hereby request that the Examiner provide an affidavit supporting the Examiner's assertion that the combination of Wingfield in view of Maslyn is *prima facie* proper, or, in the alternative, to withdraw the rejection of the claims. This is Applicants' further request for such an affidavit.

16. Claims 39-44 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,594,858 to Blevins (hereinafter "Blevins") in view of Maslyn. Applicants thank the Examiner for clarifying this rejection on page 4 of the Office Action and all previous remarks directed to the now non-existing rejection of Wingfield in view of Maslyn are withdrawn, namely paragraphs 21-25 of the previous Amendment filed on May 8, 2006. This rejection is respectively traversed for the following reasons.

17. With respect to independent claims 39 and 44, the rejection is traversed since the Office Action failed to establish a *prima facie* case of obviousness. The Office Action failed to provide a motivation to combine the references.

18. The standard for provide sufficient evidence to combine references under Section 103 is provided in paragraph 11, above. The Office Action alleges that "Blevins discloses generating template to conduct experiment," but that "Blevins does not disclose the claimed experiment is the probe array experiments. (*See, Office Action*, page 15). To supply this admittedly missing feature of Blevins, the Examiner turns to Maslyn which is alleged to "disclose[] the experiment using microarray." (*See, Office Action*, page 16).

19. The only statement regarding the motivation to combine Blevins with Maslyn to reject claims 39 and 44 is “it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Wingfield’s [Blevins’] system to include microarray for use in the experiment as taught by Maslyn in order to generate template to conduct a biological experiment using the microarray.” (*See*, Office Action, page 16). The Office Action fails to cite any passage of Blevins that would motivate one of ordinary skill in the art to combine the teachings of Blevins with Maslyn. A bald assertion of all elements are present in the cited references is not a substitute for the absence of objective reasons, sufficient evidence and reasoned findings. (*See*, MPEP 2143.01 “The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.”). The Office Action has not objectively explained the motivation to combine Blevins with Maslyn, and thus based on Federal Circuit precedent its can be reasonable assumed the Examiner selected the references with the assistance of hindsight. (*See, In re Rouffet*, 149 F.3d 1350, 1358 (Fed. Cir. 1998)). The Federal Circuit has repeated stated that the use of hindsight must be guarded against by having the Examiner provide sufficient evidence to support the motivation. (*See, e.g., In re Rouffet*, 149 F.3d 1350 (Fed. Cir. 1998); *In re Dembiczak*, 175 F.3d 994 (Fed. Cir. 1999)). In this rejection, it is clear that hindsight is used since the Office Action provided no motivation to combine Blevins with Maslyn, except for the fact that allegedly all elements of Applicants’ claimed invention are found in both references. Therefore, without proper objective evidence the Office Action fails to establish a proper *prima facie* case of obviousness to combine Blevins with Maslyn, and thus the rejection of claims 39 and 44 should be withdrawn.

20. Since there is no objective evidence to support the rejection of these claims, these claims have been rejected on the basis of facts within the personal knowledge of the Examiner, namely the motivation used to combine Blevins in view of Maslyn. Accordingly, under 37 C.F.R. § 1.104(d)(2) the Applicants hereby request that the Examiner provide an affidavit supporting the Examiner’s assertion that the combination of Blevins in view of Maslyn is *prima facie* proper, or, in the alternative, to withdraw the rejection of the claims.

***Rejection Under 35 U.S.C. § 102(a)***

21. Claim 45 is rejected under 35 U.S.C. § 102(a) as being anticipated by Wingfield. Applicants note that the Examiner rejected claim 45 under Section 102(a) but provided the text of Section 102(e). Thus, it is presumed that the rejection under Section 102(a) is intended since Wingfield fails to qualify as a reference under Section 102(e). This rejection is respectively traversed for the following reasons.

22. Under Section 102, for a reference “to anticipate a claim, the reference must teach every element of the claim.” (*See*, MPEP § 2131). Claim 45 as currently presented claims “capturing instrument operational values directly from at least one instrument used to conduct the biological experiment by the experimental manager.” The Office Action alleges that lines 27-29 of the first column on page 23 of Wingfield teaches this feature by disclosing “a layout can compare retrieve different run wherein each run obtains the data from the wells plates.” (*See*, Office Action page 14). However, this portion of Wingfield is from a sentence that reads: “But with Assay Explorer, *scientists can quickly tweak a layout and can* readily compare the data retrieved from different runs.” (*See*, Wingfield, page 23, first column, lines 26-29; emphasis added). This passage does not support the Examiner allegation that “a layout can compare retrieve different runs.” Further, the Office Action has not cited any portion of Wingfield for teaching claim 45’s feature of “capturing instrument operational values *directly* from at least one instrument.” Wingfield refers to creating different spreadsheets for each run and tweaking the spreadsheets. (*See*, Wingfield, page 23, first column, lines 18-21; emphasis added). This portion of Wingfield fails to teach capturing instrument operational values *directly* from at least one instrument. Therefore, the Office Action has failed to show that Wingfield teaches every element of claim 45 and the rejection of claim 45 should be withdrawn for being improper.

***Dependent Claims***

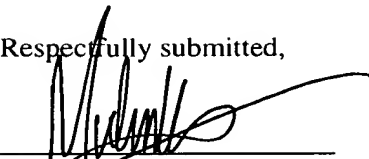
23. The dependent claims incorporate all of the subject matter of their respective independent claims and add additional subject matter which makes them *a fortiori* independently patentable over the art of record. Accordingly, Applicants respectfully request that the outstanding rejections of the dependent claims be reconsidered and withdrawn.



***Conclusion***

24. In view of the foregoing, this application should be in condition for allowance. A notice to this effect is respectfully requested.

Respectfully submitted,

  
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Michael G. Verga  
Reg. No. 39,410  
Customer Number 37,403

**JAGTIANI + GUTTAG**  
Democracy Square Business Center  
10363-A Democracy Lane  
Fairfax, Virginia 22030  
703-591-2664

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